AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1.   (Currently amended) ~~Method~~ A method for estimating from an input signal the resonance frequencies of a system modelled as a source and a filter, the method comprising ~~the steps of~~:

[[-]]   determining the Z-transform of said input signal [[,]] ;

[[-]]   calculating the differential-phase spectrum of said Z-transformed input signal, said Z-transform thereby being evaluated on a circle centered around the origin of the Z-plane[[,]] ;

[[-]]   detecting the peaks on said differential-phase spectrum [[,]] ;

[[-]]   attributing said peaks to either said source or said filter [[,]] ; and

[[-]]   estimating said resonance frequencies from said peaks.

2.   (Currently amended) The method ~~Method~~ for estimating the resonance frequencies as in claim 1, wherein said circle is different from the unit circle in the Z-plane.

3.   (Currently amended) The method ~~Method~~ for estimating the resonance frequencies as in ~~claims 1 or 2~~ claim 1, wherein said Z-transform of said input signal is evaluated on more than one circle.

4.   (Currently amended) The method ~~Method~~ for estimating the resonance frequencies as in ~~any of the previous claims~~ claim 1, wherein said input signal is windowed.

5.   (Currently amended) The method ~~Method~~ for estimating the resonance frequencies as in ~~any of the previous claims~~ claim 1, wherein said input signal is a speech signal.

6.   (Currently amended) The method ~~Method~~ for estimating the resonance frequencies as in ~~any of the previous claims~~ claim 1, wherein said source is a glottal flow signal.

7. (Currently amended) <u>The method</u> ~~Method~~ for estimating the resonance frequencies as in ~~any of the previous claims~~ <u>claim 1</u>, wherein said filter is a vocal tract system.

8. (Currently amended) <u>The method</u> ~~Method~~ for estimating the resonance frequencies as in ~~any of the previous claims~~ <u>claim 1</u>, wherein ~~the step of~~ attributing said peaks is performed based on the sign of said peaks.

9. (Currently amended) <u>The method</u> ~~Method~~ for estimating the resonance frequencies as in claim 8, wherein ~~said step of~~ attributing is further based on the radius of said circle.

10. (Currently amended) <u>The method</u> ~~Method~~ for estimating the resonance frequencies as in ~~any of the previous claims~~ <u>claim 1</u>, further comprising ~~the step of~~ removing zeros of said input signal's Z-transform before performing ~~the step of~~ calculating said differential-phase spectrum.

11. (Currently amended) ~~A program, executable on a programmable device containing~~ <u>A computer usable medium having computer readable program code embodied therein for estimating from an input signal the resonance frequencies of a system modeled as a source and a filter, the computer readable code comprising</u> instructions~~, which, when executed, perform the method as in any of the previous claims.~~ <u>for:</u>

<u>determining the Z-transform of said input signal;</u>

<u>calculating the differential-phase spectrum of said Z-transformed input signal, said Z-transform thereby being evaluated on a circle centered around the origin of the Z-plane;</u>

<u>detecting the peaks on said differential-phase spectrum;</u>

<u>attributing said peaks to either said source or said filter; and</u>

<u>estimating said resonance frequencies from said peaks.</u>